## IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF MARYLAND NORTHERN DIVISION

METROPCS WIRELESS, INC.,	)
Plaintiff,	) )
v.	Civil Action No. 1:09-CV-00601-WDQ
TELECOMMUNICATION SYSTEMS, INC.,	) ) )
Defendant.	) )

## **EXHIBIT B**

PLAINTIFF METROPCS WIRELESS, INC.'S MOTION TO TAKE JUDICIAL NOTICE OF DEFENDANT TCS' CONTRADICTORY LITIGATION AND ARBITRATION FILINGS

#### **E9-1-1 NETWORK SERVICES AGREEMENT**

This Agreement, dated as of April 11, 2003, is made by and between TeleCommunication Systems Inc, a Maryland corporation ("TCS"), having a principal place of business at 275 West Street, Annapolis, Maryland 21401 and MetroPCS Georgia, inc. or MetroPCS California/Florida, Inc., Delaware corporations ("CUSTOMER") both having a principal place of business at 8144 Walnut Hill Lane, Suite 800, Dallas, TX 75231. The parties agree as follows:

#### Section 1. Relationship of the Parties

- 1.1 Appointment. CUSTOMER hereby appoints TCS, and TCS hereby accepts appointment, as CUSTOMER's agent solely for purposes of this Agreement. CUSTOMER will make use of and deploy TCS technical solutions to provide wireless enhanced 9-1-1 services ("the TCS E9-1-1 Services") throughout its present markets. However, CUSTOMER retains the option to deploy other solutions, if required in order to satisfy federal, state or local regulations for E9-1-1 services. Except as expressly authorized in this Agreement, TCS will not enter into any agreements or undertakings for or on behalf of CUSTOMER without CUSTOMER's prior written consent.
- 1.2 Designated Representatives. Promptly after the execution of this Agreement, each party will designate in writing an individual to represent such party in the administration of the Services and this Agreement. Further, CUSTOMER will designate, and have in place at all times during the Term, a separate individual to represent CUSTOMER in connection with the performance of the Services in each market. Either party may change its designated representatives from time to time by giving written notice of such change to the other party.

#### Section 2. The Services

- 2.1 Scope and Performance. TCS will use reasonable efforts to perform for CUSTOMER the TCS E9-1-1 Services, as set forth in Phases I and II Service Descriptions, [attached hereto as Exhibit B and the Hosted PDE Services Supplement and made a part of this Agreement,] for each public safety answering point ("PSAP"), requesting from the CUSTOMER such services on such activation date (the "PSAP Activation Date"). This Network Services Agreement includes the services as described above and covers deployment of a Phase I and Phase II solution and the ongoing provisioning of intelligent routing, data delivery to the PSAP and related operational support required to deliver FCC-compliant Phase I and Phase II service. In order to enable Phase II service, CUSTOMER must select a Position Determination Equipment vendor ("PDE"), if other than TCS. The scope of effort and the associated costs of the integration of such PDE into TCS' E9-1-1 services solution will be covered in a separate Exhibit. TCS will not be responsible for implementation delays or service degradations that are not within its control including, without limitation, implementation delays or service degradations caused by CUSTOMER (including a failure by CUSTOMER to notify TCS of a Valid PSAP Request) or any PSAP, Local Exchange Carrier ("LEC"), SS7 signaling provider, PDE (if other than TCS) or interconnecting communications carrier; provided that any PSAP Activation Date that is affected by such an implementation delay shall be extended to take such delay into account.
- 2.2 Addition or Deletions of Markets or PSAPs. As specified in Paragraph 1.1 above the parties may from time to time by mutual agreement add/or delete Markets and PSAPs subject to this Agreement.
- 2.3 Cooperation and Assistance. CUSTOMER will cooperate with TCS by providing such information and will furnish to TCS all information (e.g., subscriber counts) and assistance expressly required to be provided by CUSTOMER in the Services Description. Without limitation of the foregoing, CUSTOMER will provide TCS with access to technical personnel and information in connection with performance of the Services and will furnish all information and assistance required to be provided by CUSTOMER under the Services Plan. Further, TCS and CUSTOMER will cooperate with each other in conducting any field tests and trials that TCS reasonably determines are necessary or desirable to ensure the performance and reliability of the TCS E9-1-1 Services. CUSTOMER will promptly notify TCS of any defect, deficiency or error known to or discovered by CUSTOMER.
- 2.4 Network Equipment and Software. Title to communications equipment installed by TCS on the premises of any PSAP in connection with the performance of the Services, including without limitation the Frame

Relay Access Device ("FRAD") and Communications Service Unit/Digital Service Unit ("CSU/DSU"), will remain with TCS. Title to all software provided by TCS and used by CUSTOMER, TCS or the PSAPs in connection with the Services (the "Software") will remain at all times with TCS. CUSTOMER acknowledges that all intellectual property rights in and to the Software are and will remain the property of TCS. CUSTOMER will not reverse engineer, decompile, disassemble or attempt to reconstruct, identify or discover any source code, underlying ideas or algorithms of TCS software or intellectual property.

#### Section 3. Compensation

3.1 Amounts. For each PSAP deployment, CUSTOMER will pay to TCS a Services Fee in the amount shown in Exhibit A - Rate Schedule or Hosted PDE Services Supplement for each calendar month of service provided pursuant to this Agreement, commencing as provided in the respective state administrative rules or as agreed between CUSTOMER and the appropriate state or local administrative body, but in no case later than the activation of the service. Such Services Fee will be charged in full for any partial calendar month of service provided. The Rate Schedule covers the cost of a standard TCS E9-1-1 solution. Non-standard solutions, if required, will be detailed in an addendum to Exhibit A. or the Hosted PDE Services Supplement.

#### 3.2 Billing.

- **3.2.1** Subject to Exhibit A, TCS, as the CUSTOMER's agent, will (a) bill appropriate state and local agencies for fees due to the CUSTOMER for the provision of wireless enhanced 9-1-1 services; and (b) collect such fees on behalf of CUSTOMER; and (c) retain such fees as full payment for the provision of the TCS E9-1-1 Services (the "Services Fees"). Upon request by TCS, CUSTOMER will provide reasonable assistance to TCS with respect to cost justification as required for reimbursement by applicable state and local agencies.
- 3.2.2 CUSTOMER retains the option to act as its own agent in billing and collecting from appropriate state agencies, in which case TCS would deliver bills directly to CUSTOMER in accordance with Exhibit A. CUSTOMER will give 30 day prior written notice to TCS if this option is to be exercised.

#### 3.3 Payment.

- If payment for the full amount of an invoice submitted by TCS in accordance with Section 3.2.1 is not received by TCS within the time for payment specified by the applicable state or local agency for its cost recovery mechanism (or within 60 days after the date of such invoice if no such time is specified), then upon request by TCS, CUSTOMER will reasonably cooperate with and assist TCS in collecting the amounts due from the applicable state or local agency by taking such steps as CUSTOMER would reasonably take on its own behalf in order to collect such amounts for CUSTOMER's own account. The Service Fees collected by TCS shall be TCS' compensation hereunder, and CUSTOMER will be liable to TCS, if TCS does not receive payment within 120 days from the date of the original invoice, for payment due from the applicable PSAP or any other state or local agency or emergency services fund. Solely to the extent permitted by the applicable state or local agency in connection with its cost recovery mechanism for wireless enhanced 9-1-1 services, TCS shall be entitled to seek all remedies (including, without limitation, interest on late payments and cancellation of service to the applicable PSAP) that would be reasonably available to CUSTOMER for failure to receive payments on a timely basis from the applicable PSAP, state or local agency, or emergency services fund. Any amount not paid by the applicable state or local agency or CUSTOMER will bear interest at the rate of twelve percent (12%) per annum or the highest rate permitted by applicable law, whichever is less, computed and compounded daily beginning from sixty (60) days from the original date due until the date paid. Payment of such interest will not excuse or cure any breach of or default for late payment. When payment is received by TCS from the public safety enties and the TCS service fees and any related costs have been deducted in accordance with Exhibit A, any remaining balance not remitted to CUSTOMER will bear interest at the rate of twelve percent (12%) per annum or the highest rate permitted by applicable law, whichever is less, computed and compounded daily beginning from sixty (60) days from the payment receipt date by TCS until the date the balance is remitted to CUSTOMER,
  - 3.3.2 In the event payment for the full amount of each invoice submitted by TCS under Section 3.2.2 is not received by TCS within thirty (30) days of the applicable invoice date, CUSTOMER will pay the full amount of such invoice without offset and without regard to whether CUSTOMER receives funding to make such payment from the applicable PSAP or any other state or local agency or emergency services fund. Any amount not paid by CUSTOMER will bear interest at the rate of twelve percent (12%) per annum or the highest rate permitted by

applicable law, whichever is less, computed and compounded daily beginning from ninety (90) days from the original date due until the date paid. Payment of such interest will not excuse or cure any breach of or default for late payment.

3.4 Taxes. The compensation and other amounts payable to TCS under this Agreement do not include any sales, use, excise or other applicable taxes, and it excludes taxes based on TCS' income. CUSTOMER will pay applicable taxes in a timely manner or reimburse TCS on demand for, the full amount of all such taxes, including any late charges attributable to CUSTOMER. CUSTOMER will cooperate with TCS to minimize any such tax liability and CUSTOMER will provide upon demand a Resale Exemption Certificate, if applicable.

#### Section 4. Term and Termination

- 4.1 Term. Unless otherwise terminated by either party in accordance with the provisions set forth in this Agreement, the term of this Agreement shall commence on the Effective Date and shall expire three (3) years thereafter (the "Initial Term"); provided that upon expiration of the Initial Term, this Agreement will automatically renew for successive one-year periods (each a "Renewal Term") unless one party provides to the other party a written notice of non-renewal at least 60 days prior to the expiration of the Initial Term or the then-current Renewal Term. The Initial Term and the Renewal Terms, if any, shall be collectively referred to herein as the 'Term." In the event CUSTOMER desire to holdover service after this Agreement terminates, TCS agrees to do so for a period of no longer than six (6) months at a services fee equal to one hundred thirty percent (130%) of the services fee in effect at the time of the holdover.
- 4.2 Termination for Cause. If either party breaches a material term of this Agreement, and such party fails to cure the breach within thirty (30) days following its receipt of written notice from the non-breaching party (or ten (10) days, in the case of payment defaults), then the non-breaching party, in addition to any other remedies it may have at law or in equity, may terminate the Agreement upon written notice to the breaching party.
- 4.3 Other Termination. TCS may, upon written notice to CUSTOMER, immediately terminate this Agreement if the Federal Communication Commission ("FCC") or any other regulatory agency promulgates any rule, regulation, judgment or order that (a) prohibits or substantially impedes (in effect or application) TCS from fulfilling its obligations under this Agreement or (b) has a material adverse effect on TCS's ability to conduct its business upon terms and conditions reasonably acceptable to TCS.
- 4.4 Effect of Termination. Upon any expiration or termination of this Agreement, all amounts owing to TCS hereunder will be immediately due and payable. If the CUSTOMER terminates this Agreement, at any time during the initial three (3) year period of the Agreement, except for a material breach, the CUSTOMER shall pay TCS a termination fee equal to \$300,000.
- 4.5 Survival. Sections 2.1, 2.4, 3.3, 3.4, 4.1, 4.4, 4.5, 5, 6.3, 7, 8 and 9 and the Hosted PDE Services Supplement (together with all other provisions of this Agreement that may reasonably be interpreted or construed as surviving termination) will survive the termination of this Agreement.

#### Section 5. Confidentiality

- 5.1 Confidential Information. As used in this Agreement, "Confidential Information" means any information of either TCS or CUSTOMER that is not generally known to the public, whether of a technical, business or other nature including, but not limited to, trade secrets, know-how and information relating to the technology, cell sites, customers (e.g., subscriber counts), business plans, promotional and marketing activities, finances and other business affairs.
- 5.2 Use and Disclosure. In the performance of or otherwise in connection with this Agreement, either party (the "Receiving Party") may receive certain Confidential Information of the other party (the "Disclosing Party"). The Receiving Party, except as expressly provided in this Agreement or as necessary to perform its obligations under this Agreement, will not disclose such Confidential Information to any third party or use, or permit others to use, such Confidential Information for any purpose other than the purpose for which it was disclosed without the Disclosing Party's prior written consent. Without limiting the generality of the foregoing, the Receiving Party will not use such Confidential Information for any competitive or commercial purpose other than emergency

services. The Receiving Party will take reasonable measures to avoid disclosure, dissemination or unauthorized use of such Confidential Information, including, at a minimum, those measures it takes to protect its own confidential information of a similar nature.

5.3 Exceptions. The provisions of Section 5.2 will not apply to any information that (a) is or becomes publicly available without breach of this Agreement, (b) was known to the Receiving Party at the time of its receipt from the Disclosing Party, (c) is rightfully received from a third party who did not acquire or disclose such information by a wrongful or tortious act, (d) is independently developed by the Receiving Party without reference to any Confidential Information of the Disclosing Party, (e) is required to be disclosed by process of law or by any regulatory authority, or (f) is used or disclosed with the prior written consent of the Disclosing Party. If the Receiving Party is required to disclose any of the Disclosing Party's Confidential Information due to process of law or otherwise as required by any regulatory authority, the Receiving Party will provide written notice thereof to the Disclosing Party prior to making such disclosure.

#### Section 6. Warranties

- 6.1 Warranty. TCS warrants to CUSTOMER that the TCS E9-1-1 Services will conform in all material respects to any (a) applicable performance requirements set forth in the Services Descriptions and (b) applicable rules and regulations promulgated by the FCC with respect to FCC Order 94-102 related to Phases I and II wireless E9-1-1 service. Unless provided by TCS, this warranty expressly excludes requirements related to location precision, which remains the responsibility of the carrier and designated PDE vendor(s).
- 6.2 Remedies. If any Services fail to conform to the warranty set forth in Section 6.1, and CUSTOMER notifies TCS of such nonconformance in writing within thirty (30) days after the date of such nonconformance, TCS shall use reasonable efforts to correct such nonconformance. If TCS fails to correct such nonconformance within thirty (30) days of notification by CUSTOMER, CUSTOMER may terminate the Agreement upon three (3) business days' written notice to the breaching party.
- 6.3 EXCLUSIVITY OF REMEDIES. TCS MAKES NO REPRESENTATIONS OR WARRANTIES WITH REGARD TO THE TCS E9-1-1 SERVICES OR OTHER ITEMS FURNISHED UNDER THIS AGREEMENT EXCEPT AS SET FORTH IN SECTION 6.1. THE REMEDIES OF CUSTOMER UNDER SECTION 6.2 ARE THE SOLE AND EXCLUSIVE REMEDIES OF CUSTOMER UNDER THIS AGREEMENT. EXCEPT AS PROVIDED IN SECTION 6.2, TCS DISCLAIMS AND CUSTOMER WAIVES AND RELEASES ALL RIGHTS AND REMEDIES OF CUSTOMER AND ALL WARRANTIES, OBLIGATIONS AND LIABILITIES OF TCS, EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE, WITH RESPECT TO THE SERVICES OR OTHER ITEMS FURNISHED UNDER THIS AGREEMENT, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

#### Section 7. Indemnification

- 7.1 Acknowledgement. CUSTOMER and TCS acknowledge their intent that TCS, in its performance of the TCS E9-1-1 Services, enjoy the same immunity from or limitation of liability as is available to CUSTOMER and its agents under applicable law, provided that (a) the provisions of Section 7.2 will not apply to the extent that any of the applicable claims, losses, harm, costs, liabilities, damages or expenses (including, without limitation, reasonable attorneys' fees) arose out of or in connection with any act or omission of gross negligence or willful misconduct by TCS or its employees, agents or representatives; and (b) the provisions of Section 7.3 will not apply to the extent that any of the applicable claims, losses, harm, costs, liabilities, damages or expenses (including, without limitation, reasonable attorneys' fees) arose out of or in connection with any act or omission of gross negligence or willful misconduct by CUSTOMER or its employees, agents or representatives. To the fullest extent permitted by applicable law, the foregoing indemnity will apply regardless of any fault, negligence, strict liability or product liability of TCS in connection with the provision of standard or enhanced 9-1-1 services.
- 7.2 Indemnity by Customer. Subject to Section 7.1, CUSTOMER will defend, indemnify and hold harmless TCS (and its directors, officers, employees, representatives, agents and third party vendors) from and against any and all claims, losses, harm, costs, liabilities, damages and expenses (including, without limitation, reasonable attorneys' fees) arising out of or in connection with any act or omission of gross negligence or willful misconduct by CUSTOMER or its employees, agents or representatives in the operation of any wireless

communications service (including, without limitation, any cellular, PCS, SMR, PDE mobile satellite, air-to-ground, pager or other radio common carrier system). Upon CUSTOMER's written request, TCS will provide reasonable assistance in the defense of such claims.

- 7.3 Indemnity by TCS. Subject to Section 7.1, TCS will defend, indemnify and hold harmless CUSTOMER (and its directors, officers, employees, representative, agents and third party vendors) from and against any and all claims, losses, harm, costs, liabilities, damages and expenses (including, without limitation, reasonable attorneys' fees) arising out of or in connection with (a) any act or omission constituting gross negligence or willful misconduct by TCS or its employees, agents, or representatives; or (b) TCS' gross negligence or willful misconduct in the performance of the TCS E9-1-1 Services or its other obligations under this Agreement (including, but not limited to, any failure of TCS' equipment, any failure to properly install or maintain TCS' equipment, or any other act or omission of gross negligence or willful misconduct of its directors, officers, and third party vendors with respect to the TCS E9-1-1 Services under this Agreement). Upon TCS' written request, CUSTOMER will provide reasonable assistance in the defense of such claims.
- 7.4 IP Claims. Subject to CUSTOMER'S compliance with the terms of this Section 7.4 and Sections 7.5 and 7.6, TCS shall defend, indemnify and hold harmless CUSTOMER and its officers and directors (each, an "Indemnified Party" and, collectively, the "Indemnified Parties") from and against any loss, damage, or liability, including reasonable costs and attorney fees, to the extent that such loss, damage or liability arises out of any third-party claim, suit, or allegation that CUSTOMER'S use or sale of any Product or Service pursuant to the terms of this condition infringes the patent, trademark, copyright rights, trade secret rights of other proprietary rights of such third party (collectively the "IP Claim"). TCS shall be entitled to solely control the defense of any such IP Claim with attorneys of its choice, and shall solely control the disposition of any such IP Claim. CUSTOMER shall not be entitled to any defense, indemnification or the like under this Section to the extent any such IP Claim arises out of CUSTOMER'S unauthorized use, negligent use, or misuse of any Product or Service.
- 7.5 Indemnity Procedure. CUSTOMER shall provide TCS with prompt written notice of any IP Claim for which it seeks indemnification hereunder. TCS shall (i) keep each Indemnified Party advised of the status of any such IP Claim and of its defense and/or negotiation efforts, (ii) afford such Indemnified Party a reasonable opportunity to review and comment on dispositive actions planned to be taken by TCS on behalf of such Indemnified Party, and (iii) take all steps that TCS deems reasonably necessary to effectively defend the IP Claim. Each Indemnified Party shall, at TCS' expense, reasonably cooperate with TCS in the defense of such Indemnified Party.
- 7.6 IP Claim Infringement Remedy. If the use, manufacture, or sale of any Product or Service furnished hereunder becomes subject to an IP Claim, TCS shall, at TCS' option and at no expense to the CUSTOMER, (i) by license or other release from claim of infringement obtain for the CUSTOMER the right to make, use, sell, and/or import into the United States the Product or Service, as appropriate; (ii) substitute an equivalent non-infringing Product or Service reasonably acceptable to the CUSTOMER, which meets the Specifications for the Product, and extend this indemnity thereto; or (iii) modify such Product or Service to make it non-infringing but continue to meet the Specifications therefore, and extend this indemnity thereto.

#### Section 8. Limitations of Liability

NEITHER PARTY WILL BE LIABLE TO THE OTHER (OR ITS DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES, AGENTS, CUSTOMERS OR ANY OTHER THIRD PARTY) FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE SERVICES OR SUCH PARTY'S PERFORMANCE OF OR FAILURE TO PERFORM ITS OBLIGATIONS UNDER THIS AGREEMENT. EXCEPT FOR AMOUNTS PAYABLE BY CUSTOMER TO TCS UNDER SECTION 3, EACH PARTY'S LIABILITY (WHETHER IN TORT, CONTRACT OR OTHERWISE AND NOTWITHSTANDING ANY FAULT, NEGLIGENCE (WHETHER ACTIVE, PASSIVE OR IMPUTED), PRODUCT LIABILITY OR STRICT LIABILITY OF SUCH PARTY) UNDER THIS AGREEMENT OR WITH REGARD TO THE SERVICES OR OTHER ITEMS FURNISHED UNDER THIS AGREEMENT WILL NOT EXCEED THE TOTAL COMPENSATION ACTUALLY PAID TO TCS FOR THE PREVIOUS TWELVE MONTHS UNDER SECTION 3 OR \$100,000, WHICHEVER IS GREATER.

#### Section 9. Miscellaneous

- 9.1 Force Majeure. Neither party will be liable for, or be considered to be in breach of or default under this Agreement on account of, any delay or failure to perform as required by this Agreement to the extent caused or contributed to by any condition, circumstance, event or occurrence beyond its reasonable control (including, without limitation, any failure of a PSAP or LEC to cooperate in connection with the implementation of TCS E9-1-1 Services). If any such delay occurs for a given PSAP, the applicable Activation Date will be extended solely to the extent that such delay was caused or contributed to by such condition, circumstance, event or occurrence.
- 9.2 Settlement of Disputes. A senior executive of either party may, upon notice to the other party of a dispute arising out of or related to this Agreement or within five (5) business days after receipt of a notice from the other party of a dispute arising out of or related to this Agreement, elect to utilize a non-binding resolution procedure whereby each party presents its position at a hearing before a panel consisting of one senior executive of each of the parties and, if such senior executives can agree upon such an individual, a mutually acceptable neutral advisor. If a party elects to use the procedure set forth in this Section, the other party shall participate in good faith. The hearing shall occur no more than ten (10) business days after either party notifies the other party of its election to use the procedure set forth in this Section. If such senior executives cannot resolve the matter, the neutral advisor, if any, may be asked to assist such senior executives in evaluating the merits of each party's position. The parties shall each bear their respective costs incurred in connection with the procedure set forth in this Section, provided that the parties shall each be responsible for one-half of the costs, fees and expenses of the neutral advisor, if any, and any facility required for the hearing. If elected, the procedure set forth in this Section 9.2 shall be used prior to employing any other alternative dispute resolution procedures including those set forth in Section 9.3.
- 9.3 Arbitration. If a claim, dispute or controversy (a "Dispute") arises out of or relates to this Agreement, or its breach, and the parties have not been successful in resolving such Dispute through negotiation or the use of the procedures described in Section 9.2, the Dispute will be decided by arbitration administered by the American Arbitration Association ("AAA") in accordance with its Commercial Arbitration Rules, and such arbitration shall be held (a) in Annapolis, Maryland. Each party shall bear its own expenses (including attorney's fees) and an equal share of the expenses of the arbitrator and the fees of the AAA. The parties, their representatives, other participants and the arbitrator shall hold the existence, content and result of the arbitration in confidence. In the event of arbitration, judgment on the award rendered by the arbitrator may be entered by any court having jurisdiction. Either party may, without inconsistency with this arbitration provision, apply to any court having jurisdiction hereof and seek interim provisional, injunctive or other equitable relief until the arbitration award is rendered or the controversy is otherwise resolved. Notwithstanding any choice of law provision included in this Agreement, the United States Federal Arbitration Act shall govern the interpretation and enforcement of this arbitration provision.
- 9.4 Notices. Any notice or other communication under this Agreement will be in writing and will be delivered in person, by facsimile, or mailed, properly addressed and stamped, to the intended recipient at the address appearing on the signature page of this Agreement. Notices shall be deemed received only upon actual receipt. Either party may change its address by giving the other party notice of the change in accordance with this paragraph.

#### As to CUSTOMER:

MetroPCS, Inc 8144 Walnut Hill Lane, Suite 800 Dallas, TX 75231 Attention: Dennis Spickler, VP CFO Telephone: 214-265-2564

As to TCS:

TeleCommunication Systems Inc. 275 West Street Annapolis, Maryland 21401 Attention: Contracts

Facsimile: 972-860-2606

Telephone 410-263-7616 Facsimile: 410-263-7617

- 9.5 No Waiver. The failure of either party to insist upon or enforce strict performance by the other of any provision of this Agreement or to exercise any right under this Agreement will not be construed as a waiver or relinquishment of its right to assert or rely upon any provision or right in that or any other instance, and such provision or right will remain in full force and effect.
- 9.6 Assignment. Except as otherwise expressly provided in this Agreement, neither party shall have the right to assign its rights or delegate its duties under this Agreement without the prior written consent of the other parties hereto, which consent shall not be unreasonably withheld. CUSTOMER may assign this Agreement, and all rights, benefits, liabilities and obligations hereunder to any person or business entity which is licensed by the FCC to operate a wireless communications business, is a parent, general partner, or subsidiary of CUSTOMER, controls or is controlled by or under common control with CUSTOMER, is merged or consolidated with CUSTOMER, or purchases a majority or controlling interest in the ownership or assets of CUSTOMER, or which acquires all or substantially all of the assets of CUSTOMER (for purposes of this Agreement, a "Successor"), or any entity which obtains a security interest in a substantial portion of CUSTOMER assets. CUSTOMER agrees to provide written notification of such assignment not later than thirty (30) days before such assignment occurs. The terms and conditions of this Agreement shall inure to the benefit of and be enforceable by the respective Successor. Any attempted assignment or delegation in contravention of this Section shall be null and void and shall be grounds for immediate termination.
- 9.7 Publicity. No press releases or other public announcements of or relating to this Agreement shall be made by either party without the prior mutual written consent of the other party unless required by law or regulatory authority. CUSTOMER consents to the use of CUSTOMER's name in TCS customer and/or partner lists.
- 9.8 Audit. TCS shall maintain and shall retain for a period of not less than two years after the termination or expiration of this Agreement (a) complete and accurate books and records of, and supporting documentation for, all amounts collected on behalf of CUSTOMER hereunder; and (b) complete and accurate operational documentation regarding TCS' compliance with the warranty set forth in Section 6.1. Upon fourteen days' prior written notice from CUSTOMER to TCS (or such shorter notice period as may be authorized by applicable law, rule or regulation in connection with an audit to be performed by a governmental entity) during the Term and for a period of up to two years after the termination or expiration of this Agreement, TCS shall allow CUSTOMER's independent audit firm (or such authorized governmental entity) to access such books, records and documentation for purposes of conducting an audit (including, without limitation, making copies of such books, records and documentation), and CUSTOMER shall be responsible for all expenses (except for any costs or expenses incurred by TCS) associated with such audit. Subject to the foregoing, CUSTOMER may conduct such audit no more than once per year, provided that such limitation shall not apply to audits performed by any such authorized governmental entity. TCS will cooperate with CUSTOMER's independent audit firm and any such authorized governmental entity in connection with the performance of any such audit.
- 9.9 Counterparts. This Agreement may be executed in counterparts, which together will form one agreement.
- 9.10 Governing Law. This Agreement shall be construed and enforced in accordance with the Laws of the State of Delaware without regard to its conflicts of laws provisions. Subject to Sections 9.2 and 9.3, the venue for any action brought by CUSTOMER hereunder shall be the federal or state courts located in Delaware.
- 9.11 Entire Agreement. This Agreement, together with the attached Exhibits and Hosted PDE Services Agreement, which are incorporated herein by this reference, sets forth the entire agreement of the parties, and supersedes any and all prior agreements, related to the Services. No change, amendment, or modification of any provision of this Agreement will be valid unless set forth in a written instrument signed by both parties.

IN WITNESS WHEREOF, The parties have executed this Agreement on the date first above written.

TeleCommunication Systems Inc.:

By: Puelcard A. U.

Printed: Richard A. Young

Title: Executive V.P. and C.O.O.

Address:

275 West Street Annapolis, MD 21401 **CUSTOMER:** 

By: Mydah Mr. Luang

Printed: Malcolm M. Lavana

Title: VP & C70

Address: 2144 Wabrut Hill and Dallas IX7523/

#### **EXHIBIT A**

#### Rate Schedule Offering for E9-1-1 NETWORK SERVICES AGREEMENT

Phases I and II - FCC Order 94-102

Services Fee:

\$650.00 per PSAP per Month

Based upon a three year agreement

The service fee does not include costs for services or solutions that have not been identified in the Services Description. Prior to billing, the parties will mutually agree upon the amount of any such unforeseen costs.

If a non-standard ALI interface solution is required (<u>i.e.</u>, an ALI interface solution other than the standard ALI interface solution set forth in the Services Description), the parties shall mutually agree upon an adjustment to the Services Fees to include the increased costs, if any, associated with such non-standard ALI interface solution.

Service fee does not include any additional carrier costs and is subject to any applicable tax.

## **EXHIBIT B**

The Wireless E9-1-1 Phase 1 and Phase II Service Description commences on the following pages.

This Hosted PDE Services Supplement ("Supplement") is executed and entered into this 11<sup>th</sup> day of April 2003 (the "Effective Date"), by and between TeleCommunication Systems, Inc., a Maryland corporation with a place of business at 275 West Street, Annapolis, Maryland 21401 ("TCS"), and MetroPCS Georgia, Inc. or MetroPCS California/Florida, Inc., Delaware corporations both with a place of business at 8144 Walnut Hill Lane, Suite 800, Dallas, TX 75231 ("CUSTOMER").

WHEREAS, CUSTOMER entered into an E9-1-1 Network Services Agreement dated April 11, 2003 with TCS (the "Agreement") for the provision of Phase I E9-1-1 services; and

WHEREAS, TCS has developed and implemented a hosted Position Determining Entity (PDE) service (the "PDE Service") that provides connectivity between the PDE and Mobile Positions Center (MPC) for the delivery of the Phase II E9-1-1 required messaging across an interface between the two; and

WHEREAS, the parties wish to supplement the E9-1-1 Network Services Agreement to provide for the purchase the Hosted PDE Service.

NOW, THEREFORE, in consideration of the terms and conditions set forth below, and subject to the terms and conditions of the Agreement, TCS and CUSTOMER agree as follows:

#### Section 1. TCS RESPONSIBILITIES

<u>Deliver PDE Functionality for CUSTOMER Wireless E 911 Phase II Solution:</u> TCS will provide the PDE Service to CUSTOMER using SnapTrack Location Server Software (or greater depending on general release and availability) supporting the appropriate gpsOne, IS801.1 and J-STD-036 message detail.

Hosting of PDE Service Bureau: TCS will host the SnapTrack PDE solution in its data centers. TCS will be responsible for monitoring and maintaining the PDE, including managing software updates as provided by STI.

Connectivity from PDE to MPC: TCS will be responsible for connectivity between the PDE and TCS' MPC. TCS will be responsible for passing appropriate PDE-associated messaging across standard interfaces (including the E5 and E3 as defined in the J-STD-036). Connectivity from the CUSTOMER to the MPC (e.g. the E3 interface) is not covered as part of this service. This connectivity is addressed separately as part of the TCS Xypoint Wireless E9-1-1 services.

Base Station Almanac Maintenance: TCS will host the Base Station Almanac (BSA) database and ensure that the database and data within it work in compliance with the SnapTrack PDE.

<u>Training:</u> TCS will provide "train-the-trainer" training to CUSTOMER personnel relative to CUSTOMER's operations, utilizing TCS' standard training program. See Schedule 4—Hosted PDE Training for more details.

<u>Documentation:</u> TCS will provide reasonably required documentation as mutually agreed with the CUSTOMER relating to the PDE Service. See Schedule 5—Hosted PDE Documentation for more information.

<u>TCS Testing of SnapTrack Commercial Software Releases</u>: TCS will integrate and test each SnapTrack software release in its data centers, before activating that release in hosted services provided to CUSTOMER.

Product Maintenance and Support: TCS shall maintain 7x24x365 monitoring and shall provide the first line technical support for the TCS SnapTrack PDE Service Bureau, as described in Schedule 6—Hosted PDE Service Support and Software Maintenance. SnapTrack will provide Level 2, 3 and 4 technical support to TCS and CUSTOMER. TCS shall monitor the system, handle system maintenance, and will ensure a consistent and high level of operation of the Hosted PDE Service for CUSTOMER's commercial use. TCS shall be responsible for all incident management, problem escalation and resolution, and any routine maintenance or upgrades to the system.

TCS will work directly with the CUSTOMER and SnapTrack to isolate and diagnose anomalies with the Hosted PDE Services. TCS shall be solely responsible to implement any and all necessary solutions TCS shall cause SnapTrack to provide technical assistance and software revisions as appropriate, with TCS managing the delivery of CUSTOMER and service bureau system requirements to SnapTrack.

Business and Products Review Meetings: The Parties will meet on a regular basis to review product roadmap, engineering and product support issues.

Additional Technical Support: TCS is available to provide CUSTOMER with additional technical support in areas not covered by this Supplement on a time-and-materials basis, at the rate stated in Schedule 1.1.

#### Section 2. CUSTOMER RESPONSIBILITIES

<u>Assignment of Personnel</u>: CUSTOMER will assign personnel sufficient to receive operations training during the integration period. The assigned personnel shall have sufficient technical knowledge in operating mode to understand how the PDE Service interacts with CUSTOMER's wireless network and to perform the appropriate monitoring activities.

<u>Providing BSA Information</u>: In accordance with procedures defined by TCS, the CUSTOMER shall provide information contained within the Base Station Almanac and ensuring the accuracy of the information provided. The CUSTOMER shall provide updates and additions to this information. The CUSTOMER shall notify TCS of the addition of new cell sites prior to their activation and shall provide the associated BSA information.

Connectivity to the TCS MPC: The CUSTOMER shall maintain connectivity to TCS' MPC as defined in the Agreement.

<u>Cell Site Calibration</u>: The CUSTOMER shall execute all Cell Site Calibration activities required for the BSA and provide the information to TCS (such as Antenna Latitude/Longitude, Maximum Antenna Range, Antenna Orientation, etc.). TCS can help with these activities, but they are not covered under the PDE Services.

MSC Maintenance and Updates: The CUSTOMER shall ensure that all switches are updated to the appropriate software load.

<u>GPS-enabled Handsets</u>: Shall acquire and distribute GPS-enabled handsets. Handsets that follow the IS-801-1 standard are compatible with the SnapTrack PDE.

Acceptance Test: CUSTOMER shall participate in acceptance testing related to the Integration of the PDE Service into the CUSTOMER's wireless network in accordance with the TCS Acceptance Test Plan. In the event that the service does not pass the Acceptance Test Plan criteria, CUSTOMER shall notify TCS in writing. TCS shall work the problem until it meets the Acceptance Test Plan criteria.

<u>Service Monitoring and Support:</u> CUSTOMER shall maintain appropriate monitoring and internal procedures to allow for advance notification to TCS and, when necessary, immediate escalation, when changes or malfunctioning in its network cause changes or degradation in the PDE Service.

In accordance with procedures defined by TCS the CUSTOMER shall be responsible for maintaining the elements within its wireless networks that are required for the Hosted PDE Service. The CUSTOMER shall coordinate system changes, cell site additions, and updates to the BSAs. The CUSTOMER shall also be responsible for notifying TCS of any network issues that may affect the Hosted PDE service.

<u>Business and Products Review Meetings</u>: The Parties will meet on a regular basis to review, product roadmap, engineering and product support issues.

## Section 3. PRICE AND PAYMENT

The Price for the PDE Services and the payment terms are provided in Schedule 1.

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## Section 4. TERM

This Supplement shall be effective on the Effective Date herein, and shall continue in effect thereafter for a period of three (3) years, unless otherwise terminated or modified by either party in accordance with the provisions set forth in the Agreement. At the end of the Term, this Supplement will automatically renew for successive periods of one (1) year, unless either party notifies the other party in writing at least sixty (60) days prior to the end of the Term.

#### Section 5. ASSIGNMENT

This Agreement may not be assigned or transferred by the CUSTOMER without the prior written consent of TCS hereto, which will not be unreasonably withheld, except that the CUSTOMER may assign this Agreement without consent to any parent, affiliate or wholly owned subsidiary. In addition, the CUSTOMER's rights under this Agreement may be assigned or transferred without the consent of TCS to (1) a successor in interest of Customer's entire business or substantially all of its assets, who assumes the obligations of this Agreement, or (2) to any of its lenders for collateral security purposes. No service bureau work, multiple-user license, or time-sharing arrangement is permitted, except as expressly authorized by TCS.

## Section 6. PUBLICITY

No press releases or other public announcements of or relating to this Supplement shall be made without the prior mutual written consent of each party unless required by law or regulatory authorities. CUSTOMER consents to the use of CUSTOMER's name in TCS customer and/or partner lists.

#### Section 7. MISCELLANEOUS

Any waiver or modification of this Supplement shall not be effective unless executed in writing and signed by an authorized representative of TCS and CUSTOMER. The Agreement and this Supplement, together with all of the Schedules hereto, constitute the complete and entire agreement between the parties regarding the PDE Services and supersede any prior agreements or understandings between the parties with respect to its subject matter, and shall be construed in accordance with the substantive laws of the State of Maryland. Neither party has the authority to bind or obligate the other party in any manner.

IN WITNESS WHEREOF, the parties have entered into this Agreement as of the date first written above.

TeleCommunication Systems, Inc.

(Authorized Signature)

Name/Title: Richard A. Young, Executive V.P. & C.O.O

CUSTOMER

(Authorized Signature)

Name/Title: MALCOLM LORANG

# Hosted PDE Services Supplement SCHEDULE 1

#### PRICING AND PAYMENT

The price for the Hosted PDE Services is as follows:

One-Time Set-Up Fee

CUSTOMER shall pay to TCS a one-time set-up fee of \$4,000 per PSAP, which shall be invoiced upon the PSAP activation date.

#### Monthly Recurring Fee

There will also be a monthly recurring fee in which TCS, as the CUSTOMER's agent, will (a) bill appropriate state and local agencies for fees due to the CUSTOMER for the provision of wireless enhanced 9-1-1 services; and (b) collect and retain such fees on behalf of CUSTOMER. Upon request by TCS, CUSTOMER will provide reasonable assistance to TCS with respect to cost justification as required for reimbursement by applicable state and local agencies.

TCS' monthly fee of \$1,000.00 per PSAP is based upon a three year contract.

Fees will be invoiced on a monthly basis and payment is due within thirty (30) days of the invoice date. If payment for the full amount of an invoice submitted by TCS in accordance with Section 3.2 is not received by TCS within the time for payment specified by the applicable state or local agency for its cost recovery mechanism (or within 60 days after the date of such invoice if no such time is specified), then upon request by TCS, CUSTOMER will reasonably cooperate with and assist TCS in collecting the amounts due from the applicable state or local agency by taking such steps as CUSTOMER would reasonably take on its own behalf in order to collect such amounts for CUSTOMER's own account. The Service Fees collected by TCS shall be TCS' compensation hereunder, and CUSTOMER will be liable to TCS, if TCS does not receive payment within 120 days from the date of the original invoice, for payment due from the applicable PSAP or any other state or local agency or emergency services fund. Solely to the extent permitted by the applicable state or local agency in connection with its cost recovery mechanism for wireless enhanced 9-1-1 services, TCS shall be entitled to seek all remedies (including, without limitation, interest on late payments and cancellation of service to the applicable PSAP) that would be reasonably available to CUSTOMER for failure to receive payments on a timely basis from the applicable PSAP, state or local agency, or emergency services fund. Any amount not paid by the applicable state or local agency or CUSTOMER will bear interest at the rate of twelve percent (12%) per annum or the highest rate permitted by applicable law, whichever is less, computed and compounded daily beginning from sixty (60) days from the original date due until the date paid. Payment of such interest will not excuse or cure any breach of or default for late payment. When payment is received by TCS from the public safety entities and the TCS service fees and any related costs have been deducted in accordance with Exhibit A, any remaining balance not remitted to CUSTOMER will bear interest at the rate of twelve percent (12%) per annum or the highest rate permitted by applicable law, whichever is less, computed and compounded daily beginning from sixty (60) days from the payment receipt date by TCS until the date the balance is remitted to CUSTOMER.

The CUSTOMER will be responsible for any fees not covered under the Cost Recovery and Billing processes as defined in the <u>Wireless E9-1-1 Service Description</u>.

## Services Not Covered in the SnapTrack PDE Service upfront or monthly fees:

Pricing provided for the SnapTrack PDE Service includes all deployment and maintenance activities associated with the SnapTrack PDE Service except the following:

- CUSTOMER is responsible for all elements within their network including, but not limited to, ensuring the
  appropriate software and switch load is installed on their switch, switch translations, messaging provided
  from their network, connectivity, and subscriber handsets.
- CUSTOMER is responsible for providing all information related to their cell sites, calibration of these sites, and maintenance of this information; this information is defined in the document "gpsOne™ Base Station Almanac Specification"; the CUSTOMER must also provide information for any modifications, additions or deletions to the BSA; CUSTOMER is responsible for ensuring this information is accurate and up to date; TCS will provide any tools or data they reasonably can to assist in refining and validating that data.
- CUSTOMER is responsible for obtaining and configuring data, which includes gathering, verifying and
  formatting the data; any drive testing required for cell site calibration, which includes initial deployment of
  the system; drive testing will require an individual to place calls and record the latitude and longitude for
  this call; TCS will assist with this process by providing call information generated by the PDE software.
- CUSTOMER is responsible for timely notification to TCS of any modifications to their network that may
  affect PDE service and working with TCS to resolve any system issues within the CUSTOMER's network
  that are the result of these modifications.

Any work beyond that which has been described above shall be provided in a written statement of work and agreed to by both parties. The quote for any additional effort will be at the than current prices on a time and material basis.

Additional Consulting Services and Technical Support: \$150.00 per hour. Additional reasonable expenses for other direct charges, such as travel, will be reimbursed at cost.

### **SCHEDULE 2**

## LIST OF CUSTOMER CONTACT PERSONS

Operations/Co	nnectivity:		
Main Contact:	Ron Unger	_Title:	Member of Technical Staff
Phone/Fax:	972-860-2622	_Email:_	runger@metropcs.com
Alternate:	Malcolm Lorang	_Title:	VP and CTO
Phone/Fax:	214-265-2553	_Email:_	mlorang@metropcs.com
Reporting:			
Main Contact:	Ron Unger	_Title:	Member of Technical Staff
Phone/Fax:	972-860-2622	_Email:	runger@metropcs.com
Alternate:	Malcolm Lorang	_Title:	VP and CTO
Phone/Fax:	214-265-2553	_Email:	mlorang@metropcs.com
Other Contact	Туре:	ama i sam a ship shamba	
Phone/Fax:			
Alternate:		•	

#### SCHEDULE 3

#### **Hosted PDE Services Description**

TCS will be hosting and maintaining the SnapTrack PDE software solution on its Service Bureau. TCS will be responsible for providing the connectivity between the MPC and PDE and the delivery of the required messaging across an interface between the two.

## SnapTrack's PDE

SnapTrack's PDE software provides the Position Determination Entity (PDE) functionality within a hybrid GPS-network assist architecture. The purpose of the PDE software is to monitor the GPS satellite constellation, process and store the GPS reference data received, utilize existing network infrastructure knowledge of the wireless subscriber, provide assistance data to the mobile subscriber terminal, and, in some cases, to calculate the location (latitude, longitude, etc.) of the Mobile Station (MS).

SnapTrack's PDE supports both the Wireless Assisted GPS (WAG) solution as well as the use of network information (Base Station Almanac data and Round Trip Delay information) and MS information (AFLT) to increase the yield of position determination in solving for the mobile subscriber's position. Base Station Almanac information is utilized to increase the accuracy of the initial position of the mobile subscriber as well as to improve the yield of position determination. This information is used to customize the assistance information and can help increase the yield (percentage of time a position fix is computed) for a wireless location system. Cooperation and coordination with the infrastructure vendors is required for support of this feature.

Advance Forward Link Trilateration (AFLT, i.e. the support of Pilot Phase Measurement Message reported by the MS) is also supported within the SnapTrack PDE. The use of AFLT can substantially improve the performance of a WAG location system. AFLT is supported within the Qualcomm MSM3300 chipset as well as other chips moving forward.

## SnapTrack PDE Architecture

The SnapTrack PDE Software supports positioning related functions for mobile stations within a wireless network. Support can come in many forms, but typically consists of supplying GPS aiding data (Satellite vehicle ID, Doppler, Ephemeris, Almanac, etc.) and, in some modes, computing the mobile station's position.

SnapTrack's PDE software supports several modes of operations; all based on wireless communications standards. The modes of operations are configurable by TCS, as well as determined based on the mobile station's capabilities.

- Network Server Assist, PDE Position Determination In this mode, the PDE provides assistance data to the
  mobile station (Base Station Almanac data from the wireless network, and AFLT information from the mobile
  station, if available). SnapTrack's PDE receives GPS Pseudo-range data determined by the mobile station
  and computes the final position. The position is optionally sent to the mobile station if the mobile station
  requests the position. This mode is supported by IS-801-1 and SnapTrack's LS-GS interfaces.
- Network Server Assist, Mobile Station Position Determination In this mode, the PDE provides assistance
  data to the mobile station (including the utilization of Base Station Almanac data from the wireless network,
  and AFLT information from the mobile station, if available). The mobile station computes its own position. The
  position is optionally sent to the PDE software if the network based application requests the position be sent
  back to the network. This mode is supported by the IS-801-1 interface.

Autonomous Mode, Mobile Station Position Determination - The mobile station acts as an autonomous GPS
receiver, continuously producing positions without the assistance of aiding data provided by the PDE. The
position is optionally sent to the PDE if the network-based application requests the position.

### **TCS Service Description**

TCS service will be hosting and maintaining the SnapTrack PDE software solution. TCS will be responsible for providing the connectivity between the MPC and PDE and the delivery of the required messaging across an interface between the two.

Phase II position determination is performed by the PDE with messaging handled by TCS' XLP Platform. In the case where the PDE is not able to provide a Phase II (lat/lon) position location to the MPC for routing, the MPC will perform Phase I (default) routing based on CSS (Cell Site Sector) information. In the case where the PSAP initially receives only Phase I location data, the PSAP will be able to receive Phase II data once it is provided to the MPC by the PDE.

TCS will maintain both the PDE and MPC within their Network Operations Center. (See Figure 1-1 – Phase II System Overview Diagram for more details.)

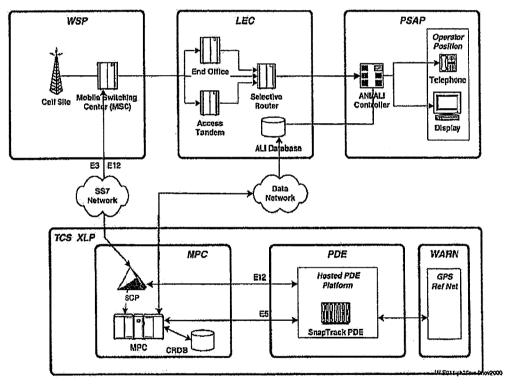


Figure 1-1 - Phase II System Overview Diagram

TCS will main a redundant and secure point of access to the Carrier's network.

## Product Support

TCS will be the first line technical support for the TCS SnapTrack PDE Service Bureau, with additional support being provided by SnapTrack. TCS will monitor the system, handle system maintenance, and will generally ensure a consistent and high level of operation of the service in commercial use. TCS will be responsible for incident management, and problem escalation and resolution, as well as for any routine maintenance or upgrades to the system.

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TCS will work directly with the CUSTOMER and with SnapTrack to isolate and diagnose Product anomalies and implement solutions where necessary. SnapTrack will provide technical assistance and software revisions as appropriate, with TCS managing the delivery of CUSTOMER and service bureau system requirements to SnapTrack.

The CUSTOMER will be responsible for maintaining the elements within their network that are required for the service bureau solution. The CUSTOMER will need to coordinate system changes, cell site additions, and updates to the Base Station Almanac with TCS. The CUSTOMER will also be responsible for notifying TCS of any network issues that may affect the PDE service.

Notice: TCS reserves the right to modify or substitute this service description and specifications at any time.

#### Schedule 4

#### **Hosted PDE Training**

TCS will provide training required for deployment and maintenance of the SnapTrack PDE Service.

This training will include the following:

- An initial kickoff meeting to outline the deployment process for the Phase II SnapTrack PDE project and review the Acceptance Test Procedure
- An introduction to the Base Station Almanac (BSA), including a definition of all information the CUSTOMER will be required to provide for the BSA (see "gpsOne™ Base Station Almanac Specification" for more details)
- Training on how to format and provide BSA information to TCS, as well as add to, modify or delete this
  information

TCS will also review all documentation with the CUSTOMER as necessary and respond to subsequent questions regarding information required for the Base Station Almanac.

Any training beyond the kickoff meeting and initial creation of the Base Station Almanac will be charged on a time and materials basis.

#### Schedule 5

#### **Hosted PDE Documentation**

TCS will provide the CUSTOMER at no additional charge all documentation necessary for proper use of the TCS SnapTrack PDE Service. This includes the following documentation:

- gpsOne™ Base Station Almanac Specification
- Practical Guidelines and Considerations for Base Station Almanac Development for Position Location Using gpsOne™ Application Note
- User Guide for providing initial Base Station Almanac Data and for adding, modifying and deleting Base
  Station Almanac information (this document will be delivered during the kick-off meeting and will include a
  file format specification for providing batch BSA data as well as instructions for any user interfaces for
  providing this data to TCS, and instructions on any tools provided by TCS for assisting in the gathering
  and refinement of BSA data)

#### Schedule 6

#### Hosted PDE Service Support and Software Maintenance

Maintenance support for Hosted PDE support of Phase II E9-1-1 shall be consistent with TCS Phase I/II support to the carrier.

TCS shall maintain a fault-tolerant, Active/Active network infrastructure. TCS' network shall be implemented across geo-redundant data centers, using a distributed, state-of-the-art dynamic software architecture and multiply redundant network elements to provide seamless fail-over and up-time.

For active system and call processing error detection, TCS shall maintain a 24x7 NOC, and coordinate timely resolution to all system service issues. TCS support shall be classified into specific categories of service impairment levels (SIL), based on internal TCS procedures and documentation.

## Service Impairment Level Definitions:

SIL3: Major outage, affecting all or most end CUSTOMERs within a given geographical area. Involves a trend of SIL2 events on a given system or process. CUSTOMER will be notified immediately upon discovery.

SIL2: Service is degraded with medium significance. Service degradation is apparent to external stakeholders. Involves a trend of SIL1 events on a given system or process. Notification to carrier within 30 minutes of discovery.

SIL1: Low level of impact to service delivery. Service degradation may be apparent to external stakeholders. Involves a trend of SIL-0 events on a given system or process. CUSTOMER will be notified within 48 hours at TCS' discretion.

SILO: No impact on service delivery. No notification to carrier.

The NOC is responsible for monitoring the SS7 Network, ALI database connections, the PDE network, and XLP production operations. Specifics are outlined in the following sections.

SS7 Network: TCS shall monitor the status of the STPs within the SS7 network. This includes the C-inks and D-links connecting the wireless carrier and TCS STPs for circuit issues, alignment issues, loading, and messaging.

ALI Database: TCS shall monitor all on-site ALI database connections, analyzing and escalating incidents as necessary, to maintain network availability. TCS shall coordinate and schedule any service-related maintenance activities with wireless carriers and PSAPs.

The links connecting the ALI database network and TCS data communications equipment and systems shall be monitored by TCS for circuit issues, data queries, data pushes, and traffic load. ALI database services are dependent on ALI database service providers, who operate independent facilities and systems.

PDE Network: TCS shall monitor all PDE connections, analyzing and escalating incidents as necessary, to maintain network availability.

The links connecting the PDE data network and TCS shall be monitored by TCS for circuits, data queries and pushes, and loading. PDE service levels are dependent upon PDE service providers, which operate independent facilities and systems.

XLP Production Operations: All interfaces, connections, services, and processes shall be monitored by TCS. Issues encompass loading, distribution, messaging, and performance shall also be monitored and resolved by TCS.

#### **Incident Management**

TCS defines an "incident" as any occurrence of abnormal system performance that may or may not directly affect wireless carrier service or billing. TCS' five-step incident management program includes the following:

- Network Monitoring
- Incident Detection
- Incident Diagnosis
- Incident Clearing
- Incident Resolution

TCS staff in Seattle and Annapolis are certified in the appropriate processes and procedures required. TCS shall utilize a four-tiered approach to troubleshooting and support, which includes the following:

- · Tier 1: Network operators who monitor events
- · Tier 2: Technical support analysts who perform initial troubleshooting and manage problem resolution
- Tier 3: Network Applications and Network Systems experts who perform extensive troubleshooting and repair.
   Tier 3 teams specialize in applications, database management, and system administration
- Tier 4: Wireless E9-1-1 Developers who provide programmatic repair

Note - Tier 3 and Tier 4 remain on-call 24 hours a day, seven days a week.

TCS shall generate incident documentation in each step of the process.

Monitoring: TCS network operators shall determine the health of the network and its services by performing active and passive monitoring 24 hours a day, 365 days a year. TCS operators shall monitor the SS7 network, the ALI database network, XLP production operations, and the PDE network.

Incident Detection: If an incident occurs, TCS operators shall take incident reports and run scripts to determine network functioning levels. If CUSTOMER notification is necessary, TCS analysts shall make contact with both CUSTOMER and the PSAP throughout the process. TCS tracking shall continue throughout this process.

Incident Diagnosis: TCS analysts shall collect symptoms and perform troubleshooting to determine if symptoms are related, eliminate non-production problems, and, if necessary, identify the most effective experts, including vendors, the CUSTOMER, and PSAPs to resolve the incident. If necessary, a conference call shall be set up for experts to diagnose the problem and facilitate problem resolution. TCS shall generate documents to track the process.

Incident Clearing: Utilizing the information gleaned from diagnosis, TCS analysts and experts shall fix the problem or provide a temporary solution so the system is functioning well, but not at optimum levels.

Incident Resolution: TCS analysts and experts shall restore the network to its optimal performance.

#### Schedule 7

#### Hosted PDE Acceptance Test Plan

The Acceptance Test Plan, which will be defined as part of the SnapTrack PDE Service development process, will be provided by TCS during the kick-off meeting. This may include and is not limited to the following process:

- TCS provides the drive test forms to the CUSTOMER when the CUSTOMER's drive testers are ready to test the market.
- TCS provides a test script to the CUSTOMER.
- TCS schedules the testing with the CUSTOMER and the PSAP.
- The CUSTOMER's representative or "tester" places the calls required for verifying the system is functioning correctly.
- The tester should record PSAP responses on the test script form. This information will include, but not be limited to, time call is placed, lat/lon of call placed (determined by separate GPS unit), and MIN of test phone. The tester will be responsible for reporting this information back to TCS.
- TCS monitors the calls and troublesheets any malfunctions.
- Both TCS and the CUSTOMER make changes, if necessary, to resolve data discrepancies. These
  changes may need to be made on the CUSTOMER's MSC or on the TCS system.
- Submit the test results to TCS.

The number of test calls required for Acceptance Testing will vary depending on the terrain of the area tested (urban vs. rural, for example) and the accuracy of Base Station Almanac data provided by the CUSTOMER.

Sampling, or testing a subset of the entire network of sites and sectors, may be possible when both the CUSTOMER and TCS are comfortable that the site and sector data provided is consistently accurate.

TCS will provide up to five GPS devices and five test phones for use during the Acceptance Testing. The CUSTOMER will be responsible for returning these GPS devices and test phones to TCS within 10 business days after the completion of drive testing.

Note: The above procedure is subject to change based on any revisions in the system between contract signing and final deployment.

## Amendment No. 1 to E9-1-1 Network Services Agreement and Hosted PDE Services Supplement

## Addition of Affiliates and Designated Entities

This Amendment No. 1 ("Amendment") is entered into by and between TeleCommunication Systems, Inc. a Maryland corporation ("TCS") having a principal place of business at 275 West Street, Annapolis, Maryland 21401 and MetroPCS Georgia, LLC f/k/a MetroPCS Georgia, Inc. and MetroPCS California, LLC f/k/a MetroPCS California/Florida, Inc. both having a principal place of business at 8144 Walnut Hill Lane, Suite 800, Dallas, Texas 75231 (collectively "CUSTOMER"). This Amendment No. 1 is effective as of the date of execution by TCS ("Amendment Effective Date").

WHEREAS, the parties have entered into a E9-1-1 Network Services Agreement and a Hosted PDE Services Supplement effective April 11, 2003 ("Agreement/Supplement"); and

WHEREAS, the parties wish to modify and supplement the provisions of such Agreement and Supplement;

NOW, THEREFORE, the parties, in consideration of the terms and conditions herein, agree as follows:

- "Designated Entities" is defined as small and very small business or consortia
  affiliated with CUSTOMER which are awarded licenses through a FCC approved
  crediting process.
- 2. "Affiliates" is defined as any entity that directly or indirectly, owns, is owned with, or is owned by CUSTOMER.
- "CUSTOMER" is now defined as MetroPCS Georgia, LLC, MetroPCS California, LLC, their Affiliates, and any Designated Entities of CUSTOMER or its Affiliates.
- 4. The capitalized terms defined in the Agreement/Supplement shall have the same meaning in this Amendment as in the Agreement/Supplement.
- 5. Except as explicitly modified, all terms, conditions and provisions of the Agreement/Supplement shall continue in full force and effect.
- 6. In the event of any inconsistency or conflict between the Agreement/Supplement and this Amendment, the terms, conditions and provisions of this Amendment shall govern and control.

7. This Amendment and the Agreement/Supplement constitute the entire and exclusive agreement between the parties with respect to this subject matter. All previous discussions and agreements with respect to this subject matter are superseded by the Agreement/Supplement and this Amendment.

IN WITNESS WHERREOF, the parties hereto have caused this Amendment to be executed by their duly authorized representatives, effective as of the Amendment Effective Date.

TeleCommunication Systems, Inc.	MetroPCS Georgia, LLC and MetroPCS California, LLC
BY: Alles & Ciccies &	BY: (Signature)
Director of Contracts Sorre TITLE: \$\frac{1}{20}\rightarrow{06}	rice Robert Young TITLE: Executive Vice President
	legal Raison:
	1. dentophe ha
	08/21/06

## Amendment No. 2 to E9-1-1 Network Services Agreement and Hosted PDE Services Supplement

This Amendment No. 2 ("Amendment") is entered into by and between TeleCommunication Systems, Inc., a Maryland corporation ("TCS") having a principal place of business at 275 West Street, Annapolis, Maryland 21401 and MetroPCS Wireless, Inc., a Delaware corporation having a principal place of business at 8144 Walnut Hill Lane, Suite 800, Dallas, Texas 75231 ("CUSTOMER"). This Amendment No. 2 is effective as of April 1, 2007 ("Amendment Effective Date"). This Amendment may refer to either TCS or CUSTOMER (as defined below) or both as a "Party" or "Parties."

WHEREAS, the Parties have entered into a E9-1-1 Network Services Agreement dated April 11, 2003 (the "Agreement"), a Hosted PDE Services Supplement dated April 11, 2003 (the "Supplement"), an Amendment No. 1 to E9-1-1 Network Services Agreement and Hosted PDE Services Supplement with an effective date of August 22, 2006 ("Amendment No. 1"); and

WHEREAS, the Parties wish to amend and supplement the provisions of the Agreement, the Supplement and Amendment No. 1;

NOW, THEREFORE, the Parties, in consideration of the terms and conditions herein, agree as follows:

- 1. "CUSTOMER" is now defined as MetroPCS Wireless, Inc., its Affiliates, and any Designated Entities of CUSTOMER or its Affiliates.
- 2. "Phase I PSAP Activation Date" is defined as the date upon which TCS first provides Phase I E9-1-1 Services for a PSAP.
- 3. "Phase II PSAP Activation Date" is defined as the date upon which TCS first provides Phase II E9-1-1 Services for a PSAP.
- 4. "Market" is defined as CUSTOMER's area of operation listed in Exhibit 1 to Amendment No. 2.
- 5. Section 1.1 of the Agreement is replaced in its entirety with the following:

Appointment. CUSTOMER hereby appoints TCS, and TCS hereby accepts appointment, as CUSTOMER's agent solely for purposes of this Agreement. CUSTOMER will make use of and deploy TCS technical solutions on a non-exclusive basis to provide wireless enhanced 9-1-1 services ("the TCS E9-1-1

Services") throughout the Markets identified in Exhibit 1 to Amendment No. 2 to this Agreement. However, CUSTOMER retains the option to deploy other solutions at its option. Except as expressly authorized in this Agreement, TCS will not enter into any agreements or undertakings for or on behalf of CUSTOMER without CUSTOMER's prior written consent.

6. Section 2.2 of the Agreement is replaced in its entirety with the following:

Addition or Deletions of Markets. The Parties may from time to time by written agreement signed by both Parties add/or delete Markets subject to this Agreement. After the completion of the first one (1) year of the Extension Term (as defined below) or at any time during a subsequent Renewal Term, CUSTOMER may, upon three (3) months written notice, unilaterally elect to delete Markets subject to this Agreement without penalty. Upon the deletion of a Market, TCS will provide any assistance CUSTOMER reasonably requires,

7. Section 3.1 of the Agreement is replaced in its entirety with the following:

For each PSAP deployment, CUSTOMER will pay to TCS a Services Fee in the amount shown in Exhibit A of the Agreement (Rate Schedule Offering for E9-1-1 Network Services Agreement) or Schedule 1 of the Supplement (Pricing and Payment) for each calendar month of service provided pursuant to this Agreement. Billing will commence as provided in the respective state administrative rules or as agreed between CUSTOMER and the appropriate state or local administrative body, but in no case later than the PSAP Activation Date. For the calendar month when the Phase I Activation Date occurs, TCS will invoice CUSTOMER fifty percent (50%) of the monthly Services Fee. Exhibit A of the Agreement (Rate Schedule Offering for E9-1-1 Network Services Agreement) covers the cost of a Phase I TCS E9-1-1 Services solution. Non-standard Services solutions, including but not limited to Phase II Service, if required, will be detailed in an addendum to the Exhibit A of the Agreement (Rate Schedule Offering for E9-1-1 Network Services Agreement) or will be detailed in the Hosted PDE Services Supplement.

- 8. Section 3.2 of the Agreement is replaced in its entirety with the following:
  - 3.2 State or Local Agency Billing
    - 3.2.1 CUSTOMER will act as its own agent in billing and collecting from appropriate state and local agencies for cost recovery fees due to the CUSTOMER for the provision of wireless enhanced 9-1-1 service.

- 3.2.2 Intentionally omitted.
- 9. Section 3.3 of the Agreement is replaced in its entirety with the following:

## 3.3 Payment

3.3.1 CUSTOMER will pay the full amount of any undisputed charges submitted by TCS under Section 3.1 within thirty (30) days of the applicable invoice date ("Due Date"). Invoices will be sent via overnight courier service to CUSTOMER. If the payment Due Date is a Saturday, Sunday or a designated bank holiday, payment shall be made the next business day. If receipt of the invoice is greater than five (5) business days from the invoice date, the Due Date shall be adjusted to reflect the delay in receipt of the invoice by adding the number of days of delay to the original Due Date. If any portion of an amount due to TCS under this Agreement is subject to a good faith dispute between the Parties, CUSTOMER will, within thirty (30) days of its receipt of the invoice containing such disputed amount, give notice to TCS of the amount it disputes and include in such notice the specific details and reasons for disputing each item. Any undisputed amount not paid by CUSTOMER may bear interest at the rate of twelve percent (12%) per annum or the highest rate permitted by applicable law, whichever is less, computed and compounded daily beginning from ninety (90) days from the original Due Date until the date paid. Payment of such interest will not excuse or cure any breach of or default for late payment.

### 3.3.2 Intentionally omitted.

- 10. The "Services Fee" set forth in Exhibit A of the Agreement (Rate Schedule Offering for E9-1-1 Network Services Agreement) is reduced from \$650.00 per PSAP per month to \$487.50 per PSAP per calendar month.
- 11. The "One-Time Set Up Fee" section of Schedule 1 of the Supplement is replaced in its entirety with the following:

### One-Time Set-Up Fee

CUSTOMER shall pay to TCS a one-time set-up fee of \$900.00 per PSAP, which shall be invoiced upon the Phase I PSAP Activation Date. The Parties

expressly agree that no set-up fee will be charged upon a PSAP's transition from Phase I Services to Phase II Services.

12. The "Monthly Recurring Fee" section of Schedule 1 of the Supplement is replaced in its entirety with the following:

## Monthly Recurring Fee

CUSTOMER shall pay to TCS a monthly recurring fee of \$750.00 per PSAP for each calendar month of service provided pursuant to this Supplement. Billing will commence as provided in the respective state administrative rules or as agreed between CUSTOMER and the appropriate state or local administrative body, but in no case later than the PSAP Activation Date. For the calendar month when the Phase II PSAP Activation Date occurs, TCS will invoice CUSTOMER fifty percent (50%) of the monthly recurring fee.

CUSTOMER will pay the full amount of any undisputed charges submitted by TCS within thirty (30) days of the applicable invoice date ("Due Date"). Invoices will be sent via overnight courier service to CUSTOMER. If the payment Due Date is a Saturday, Sunday or a designated bank holiday, payment shall be made the next business day. If receipt of the invoice is greater than five (5) business days from the invoice date, the Due Date shall be adjusted to reflect the delay in receipt of the invoice by adding the number of days of delay to the original Due Date. If any portion of an amount due to TCS under this Agreement is subject to a good faith dispute between the Parties, CUSTOMER will, within thirty (30) days of its receipt of the invoice containing such disputed amount, give notice to TCS of the amount it disputes and include in such notice the specific details and reasons for disputing each item. Any undisputed amount not paid by CUSTOMER may bear interest at the rate of twelve percent (12%) per annum or the highest rate permitted by applicable law, whichever is less, computed and compounded daily beginning from ninety (90) days from the original Due Date until the date paid. Payment of such interest will not excuse or cure any breach of or default for late payment.

13. The term of the Agreement and Supplement are extended for three (3) years through April 1, 2010 (the "Extension Term") provided that upon the expiration of this Extension Term, the Agreement and Supplement will automatically renew for successive one (1) year periods (each a "Renewal Term") unless one Party provides to the other Party a written notice of non-renewal at least sixty (60) days prior to the expiration of the Extension Term or the then current Renewal Term. Notwithstanding anything contained in the Agreement, Supplement or Amendment No. 1 to the contrary, the Supplement shall terminate upon the expiration or earlier termination of the Agreement.

- 14. The capitalized terms defined in the Agreement/Supplement shall have the same meaning in this Amendment as in the Agreement/Supplement.
- 15. Except as explicitly modified, all terms, conditions and provisions of the Agreement/Supplement shall continue in full force and effect.
- 16. In the event of any inconsistency or conflict between the Agreement/Supplement and this Amendment, the terms, conditions and provisions of this Amendment shall govern and control.
- 17. This Amendment and the Agreement/Supplement constitute the entire and exclusive agreement between the Parties with respect to this subject matter. All previous discussions and agreements with respect to this subject matter are superseded by the Agreement/Supplement and this Amendment.

IN WITNESS WHERREOF, the Parties hereto have caused this Amendment to be executed by their duly authorized representatives.

TeleCommunication Systems, Inc.	MetroPCS Wireless, Inc.
BY: Duce A. Write	BY: Refleyo
(Signature)	(Mgnature)
TITLE: VICE PRETIDENT	EVP
TITLE: VICE PRETIDENT DATE: 04/17/07	TITLE: Y/16/07
DAIL. 04/1-+/01	DAIL.

## Exhibit 1

## MARKETS

ATLANTA
SOUTH FLORIDA
CENTRAL FLORIDA
SACRAMENTO
SAN FRANCISCO
LOS ANGELES
LAS VEGAS
DALLAS
DETROIT

## Amendment No. 3 to E9-1-1 Network Services Agreement and Hosted PDE Services Supplement

This Amendment No. 3 ("Amendment") is entered into by and between TeleCommunication Systems, Inc. a Maryland corporation ("TCS") having a principal place of business at 275 West Street, Annapolis, Maryland 21401 and MetroPCS Wireless, Inc. having a principal place of business at 2250 Lakeside Boulevard, Richardson, Texas 75802 ("CUSTOMER"). This Amendment No. 3 is effective as of January 1, 2008 ("Amendment Effective Date"). This Amendment may refer to either TCS or CUSTOMER (as defined above) or both as a "Party" or "Parties".

WHEREAS, the parties have entered into a E9-1-1 Network Services Agreement dated April 11, 2003 (the "Agreement"), a Hosted PDE Services Supplement dated April 11, 2003 (the "Supplement"), an Amendment No. 1 with an effective date of August 22, 2006 ("Amendment No. 1") and an Amendment No. 2 with an effective date of April 1, 2007 ("Amendment No. 2"); and

WHEREAS, the parties wish to modify and supplement the provisions of such Agreement, Supplement and Amendments;

NOW, THEREFORE, the parties, in consideration of the terms and conditions herein, agree as follows:

- 1. Exhibit 1 of Amendment 2 shall be modified as follows:
  - a. Add the following New Markets:
    - i. Jacksonville
    - ii. Boston
    - iii. New York City
    - iv. Philadelphia
- 2. The One Time Set Up Fee as defined in Section 11 of Amendment 2 is changed to \$0 per PSAP for New Markets effective February 1, 2008.
- 3. The One Time Set Up Fee as defined in Section 11 of Amendment 2 is changed to \$0 per PSAP for Existing Markets effective January 1, 2008. Existing Markets include:
  - a. Atlanta
  - b. South Florida
  - c. Central Florida
  - d. Sacramento
  - e. San Francisco

- f. Los Angeles
- g. Las Vegas
- h. Dallas
- i. Detroit

- 4. The "Services Fee" and "Monthly Recurring Fee" in Sections 10 and 12, respectively, in Amendment 2 remain unchanged.
- 5. The term of the Agreement and Supplement are extended for three (3) years from the Amendment Effective Date (the "Extension Term"), i.e. December 31, 2010, provided that upon the expiration of this Extension Term, the Agreement and Supplement will automatically renew for successive one (1) year periods (each a "Renewal Term") unless one Party provides to the other Party a written notice of non-renewal at least sixty (60) days prior to the expiration of the Extension Term or the then current Renewal Term. Notwithstanding anything contained in the Agreement, Supplement, or the Amendments to the contrary, the Supplement shall terminate upon expiration or earlier termination of the Agreement.
- 6. The capitalized terms defined in the Agreement /Supplement shall have the same meaning in this Amendment as in the Agreement/Supplement.
- 7. Except as explicitly modified, all terms, conditions and provisions of the Agreement/Supplement shall continue in full force and effect.
- 8. In the event of any inconsistency or conflict between the Agreement/Supplement and this Amendment, the terms, conditions and provisions of this Amendment shall govern and control.
- 9. This Amendment and the Agreement/Supplement, Amendment No. 1 and Amendment No. 2 constitute the entire and exclusive agreement between the parties with respect to this subject matter. All previous discussions and agreements with respect to this subject matter are superseded by the Agreement/Supplement, Amendment No. 1, Amendment No. 2 and this Amendment.

IN WITNESS WHERREOF, the parties hereto have caused this Amendment to be executed by their duly authorized representatives, effective as of the Amendment Effective Date.

TeleCommunication Systems, Inc.	MetroPCS Wireless, Inc.
BY: A. alushe Cucienhi (Signature)	BY: Thom Kuy (Signature)
A. Celeste Ciecierski Sr. Director, Contracts	Thomas Keys C.O.O.
TITLE: 02/11/08	TITLE: 2/8/08